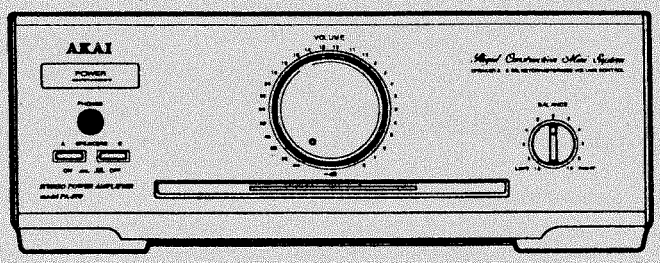


MODEL PA-970

STEREO POWER AMPLIFIER

MODEL PA-770/970

SPECIFICATIONS

Power output	
MODEL PA-770	
FTC	45W + 45W (60Hz to 20kHz, 0.5% THD, 6 ohms)
DIN	55W + 55W (1kHz, 1.0% THD, 6 ohms)
	50W + 50W (1kHz, 1.0% THD, 8 ohms)
EIAJ	70W + 70W (1kHz, 10% THD, 6 ohms)
MODEL PA-970	
FTC	55W + 55W (60Hz to 20kHz, 0.5% THD, 6 ohms)
DIN	65W + 65W (1kHz, 1.0% THD, 6 ohms)
	55W + 55W (1kHz, 1.0% THD, 8 ohms)
EIAJ	85W + 85W (1kHz, 10% THD, 6 ohms)
Music power output	
MODEL PA-770	500W (L / R total)
MODEL PA-970	600W (L / R total)
Peak music power output	
MODEL PA-770	800W (L / R total)
MODEL PA-970	900W (L / R total)
Required speaker impedance	6 to 16 ohms (A or B)
	12 to 16 ohms (A + B)
Power requirement	AC220 - 230V, 50Hz for Europe except UK
	AC240V, 50Hz for UK and Australia
	AC110/120/220/240V, 50/60Hz convertible for other countries.
Power consumption	
MODEL PA-770	110W
MODEL PA-970	130W
Dimensions	270 (W) x 100 (H) x 358 (D) mm
Weights	
MODEL PA-770	5.6kg
MODEL PA-970	6.2kg

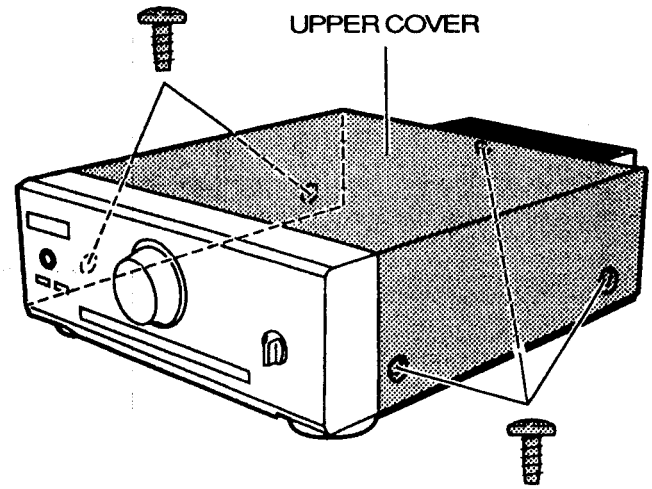
Standard accessories	
Remote control unit	x 1
Batteries	x 2
Operator's manual	x 1

*For improvement purposes, specifications and design are subject to change without notice.

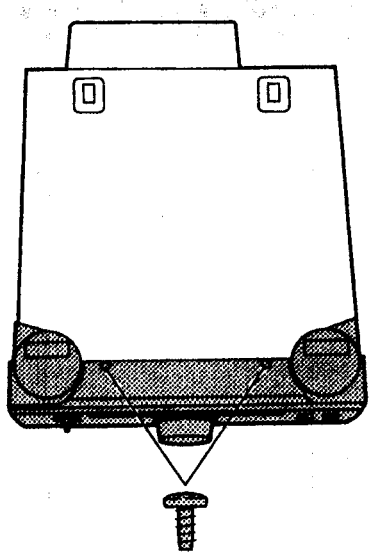
I. DISASSEMBLY

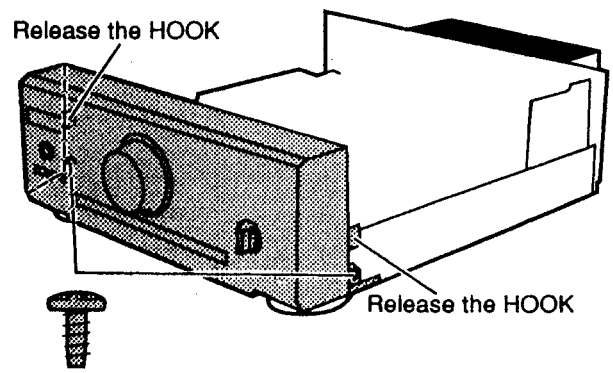
In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.
Reassemble in the reverse order.

1. Removal of the UPPER COVER



2. Removal of the FRONT PANEL





II. PRINCIPAL PARTS LOCATION

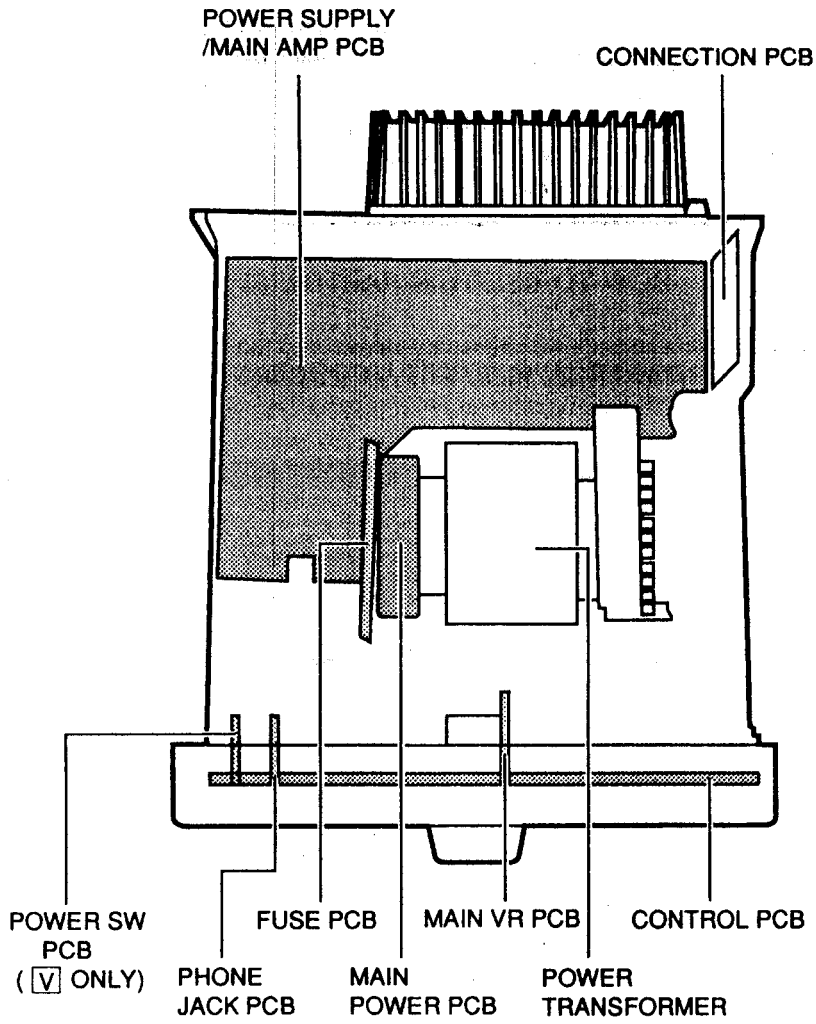


Fig. 2-1 Top view

III. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

Ref. No.	Part No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

b) PC Board

6. MAIN PC BOARD

Ref. No.	Part No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A) [S] : SAA (Australia)
[B] : BEAB (England) [U] : U/T (Universal Area)
[C] : CSA (Canada)
[E] : CEE (Europe) [V] : VDE (Germany)
[J] : JPN (Japan) [Y] : Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No.listed at right of Part No.

WARNING

⚠ (*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	AX-411759M	REMOCON RC-S670
2	*BT-408786M	TRANS POW A5013 B S [B,S] [770]
3	*BT-408785M	TRANS POW A5013 E V [E,V] [770]
4	*BT-408784M	TRANS POW A5013 U [U] [770]
5	*BT-408789M	TRANS POW A5014 B S [B,S] [970]
6	*BT-408788M	TRANS POW A5014 E V [E,V] [970]
7	*BT-408787M	TRANS POW A5014 U [U] [970]
8	ED-394509J	D LED GL3HY43 ORANGE
9	ED-408768J	D LED SEL2213C TP6 RED
10	ED-403757J	D LED SEL2913K D,Y1 D,Y2ORANGE
11	ED-307572	D SILICON H 1SS131
12	*ED-394708J	D SILICON RBA402 200/4.0A [770]
13	*ED-384278J	D SILICON RBV602 200/6.0A [970]
14	*ED-511907	D SILICON 1N4002 100/1.0A
15	ED-388320J	D ZENER H HZS12B3L
16	*ED-378530J	D ZENER H HZS6B2L
17	*EF-355398	FUSE BET T 250V 2.00A [U,B,S]
18	*EF-364518	FUSE BET T 250V 2.50A [770]
19	*EF-359225	FUSE BET T 250V 3.15A [970]
20	*EF-359086	FUSE BET T 250V 4.00A
21	*EF-358974	FUSE BET T 250V 630MA
22	*EF-601964	FUSE SEMKO T 250V 1.60A [770]
23	*EI-358554	IC STK4152II [770]
24	*EI-366695	IC STK4172-2 [970]
25	EO-403613J	COIL FIX 2 202AK-018A 2R2K
26	*EO-338409	COIL LF FKOB160MH02 250UH
27	*ER-331188	R FUSE H S10 ERD2FC 1/4W 8R2J
28	*ER-401039J	R FUSE V T05 ERD2FCV 1/4W 4R7J [E,V] [970]
29	*ER-408716J	R FUSE V T05 ERD2FCV 1/4W56R0G
30	ER-397193J	R OMF V T05 FS 1W 100J
31	ES-394512J	SW PUSH SPEA12 02-02N
32	*ES-349070	SW SELECTOR YKS11-0002 02-4 [U]
33	ES-408703J	SW TACT EVQ 233 05R T05 [U,E,B,S]
34	ET-369248	TR DTA114YS [E,V] [970]
35	ET-373985	TR DTA144TS
36	ET-354365	TR DTC114YS
37	ET-354371	TR DTC124ES
38	ET-353899	TR 2SA1317 S,T,U [E,V] [970]
39	*ET-366365	TR 2SB1185 E,F [E,V] [970]
40	ET-397160J	TR 2SC3330 R,S,T,U,V
41	*ET-378524J	TR 2SC3383 S,T,U
42	ET-394735J	TR 2SC3792 T05
43	*ET-366581	TR 2SD1762 E,F
44	EV-408707J	VR ROTARY RK11K1140 SP W104 [BALANCE VR]
45	EV-408811J	VR SPL EUW M06 022B15 B104X2 [MAIN VR]

2. P.C BOARD BLK

Ref. No.	Part No.	Description
1A	BA-A5013T030A	ML PC (#) MAIN BLK PA-750 (U)/ML [U]
1B	BA-A5013T030B	ML PC (#) MAIN BLK PA-750 (E)/ML [E]
1C	BA-A5013T030L	ML PC (#) MAIN BLK PA-770 (V)/ML [V]
1D	BA-A5013T030D	ML PC (#) MAIN BLK PA-750 (B)/ML [B]
1E	BA-A5013T030J	ML PC (#) MAIN BLK PA-750 (S)/ML [S]
1F	BA-A5013T030E	ML PC (#) MAIN BLK PA-950 (U)/ML [U]
1G	BA-A5013T030F	ML PC (#) MAIN BLK PA-950 (E)/ML [E]
1H	BA-A5013T030K	ML PC (#) MAIN BLK PA-970 (V)/ML [V]
1J	BA-A5013T030H	ML PC (#) MAIN BLK PA-950 (B)/ML [B,S]

PC (#) MAIN BLK CONSISTS OF FOLLOWING P.C BOARDS.

- POWER SUPPLY/MAIN AMP P.C BOARD
- CONNECTION P.C BOARD
- MAIN VR P.C BOARD
- PHONE JACK P.C BOARD
- INDICATOR P.C BOARD
- FUSE P.C BOARD

3. POWER SUPPLY/MAIN AMP P.C BOARD

Ref. No.	Part No.	Description
C83A	EC-394535J	C EC V CUT SME 332M 45.0DC [770]
C83B	EC-394534J	C EC V CUT SME 472M 50.0DC [970]
C84A	EC-394535J	C EC V CUT SME 332M 45.0DC [770]
C84B	EC-394534J	C EC V. CUT SME 472M 50.0DC [970]
C91	*EC-403337J	C CE V DE7100 F472M 400AC
C92	*EC-403337J	C CE V DE7100 F472M 400AC
D1A	*ED-394708J	D SILICON RBA402 200/4.0A [770]
D1B	*ED-384278J	D SILICON RBV602 200/6.0A [970]
D2	*ED-511907	D SILICON 1N4002 100/1.0A
D3	*ED-511907	D SILICON 1N4002 100/1.0A
D4	ED-388320J	D ZENER H HZS12B3L
D5	ED-307572	D SILICON H 1SS131
D6	ED-307572	D SILICON H 1SS131
D7	ED-307572	D SILICON H 1SS131
D8	ED-307572	D SILICON H 1SS131 [E,V] [970]
D9	ED-307572	D SILICON H 1SS131 [E,V] [970]
D10	*ED-388320J	D ZENER H HZS12B3L [E,V] [970]
D11	*ED-511907	D SILICON 1N4002 100/1.0A [E,V] [970]
D12	*ED-511907	D SILICON 1N4002 100/1.0A [E,V] [970]
D13	*ED-388320J	D ZENER H HZS12B3L
D14	ED-511907	D SILICON 1N4002 100/1.0A
D15	ED-511907	D SILICON 1N4002 100/1.0A
D16	ED-511907	D SILICON 1N4002 100/1.0A
D17	ED-511907	D SILICON 1N4002 100/1.0A
D18	*ED-511907	D SILICON 1N4002 100/1.0A
FR1	*ER-331188	R FUSE H S10 ERD2FC 1/4W 8R2J
FR2	*ER-408716J	R FUSE V T05 ERD2FCV 1/4W56R0G
FR3	*ER-401039J	R FUSE V T05 ERD2FCV 1/4W 4R7J [E,V] [970]
IC1A	*EI-358554	IC STK4152II [770]
IC1B	*EI-366695	IC STK4172-2 [970]
L1	EO-403613J	COIL FIX 2 202AK-018A 2R2K
L2	EO-403613J	COIL FIX 2 202AK-018A 2R2K
L3	EO-342936	COIL BALUM [V]
L4	EO-342936	COIL BALUM [V]
L5	*EO-338409	COIL LF FKOB160MH02 250UH
R9	ER-397193J	R OMF V T05 FS 1W 100J
R10	ER-397193J	R OMF V T05 FS 1W 100J
R59	ER-397193J	R OMF V T05 FS 1W 100J
R60	ER-397193J	R OMF V T05 FS 1W 100J
TM1	EJ-408698J	TERMINAL PUSH LQR0810-0006 8P
TR1	ET-354365	TR DTC114YS
TR2	ET-373985	TR DTA144TS
TR3	*ET-366365	TR 2SB1185 E,F [E,V] [970]
TR4	ET-353899	TR 2SA1317 S,T,U [E,V] [970]
TR5	ET-369248	TR DTA114YS [E,V] [970]
TR6	*ET-353899	TR 2SA1317 S,T,U [E,V] [970]
F1A	*EF-364518	FUSE BET T 250V 2.50A [770]
F1B	*EF-359225	FUSE BET T 250V 3.15A [970]
F2A	*EF-364518	FUSE BET T 250V 2.50A [770]
F2B	*EF-359225	FUSE BET T 250V 3.15A [970]
F3	*EF-355398	FUSE BET T 250V 2.00A [U,B,S]
F4	*EF-355398	FUSE BET T 250V 2.00A [U]

4. CONNECTION P.C BOARD

Ref. No.	Part No.	Description
D201	*ED-511907	D SILICON 1N4002 100/1.0A
D202	*ED-511907	D SILICON 1N4002 100/1.0A
D203	*ED-378530J	D ZENER H HZS6B2L
D204	*ED-388320J	D ZENER H HZS12B3L
D205	*ED-307572	D SILICON H 1SS131
J6	EJ-408717J	SOCKET CFG1115-0121 RED 15P
J7	EJ-408775J	SOCKET CFG1204-0101 BLACK 4P
TR201	*ET-366581	TR 2SD1762 E,F
TR202	*ET-378524J	TR 2SC3383 S,T,U

5. CONTROL P.C BOARD

Ref. No.	Part No.	Description
D301	ED-408768J	D LED SEL2213C TP6 RED
D302	ED-408768J	D LED SEL2213C TP6 RED
D303	ED-408768J	D LED SEL2213C TP6 RED
D304	ED-408768J	D LED SEL2213C TP6 RED
D305	ED-403757J	D LED SEL2913K D,Y1 D,Y2ORANGE
D306	ED-403757J	D LED SEL2913K D,Y1 D,Y2ORANGE
D307	ED-403757J	D LED SEL2913K D,Y1 D,Y2ORANGE
D308	ED-403757J	D LED SEL2913K D,Y1 D,Y2ORANGE
D309	ED-403757J	D LED SEL2913K D,Y1 D,Y2ORANGE
R313	ER-397194J	R OMF V T05 FS 1W 331J
R314	ER-397194J	R OMF V T05 FS 1W 331J
SW301	ES-394512J	SW PUSH SPEA12 02-02N
SW302	ES-394512J	SW PUSH SPEA12 02-02N
TR301	ET-353899	TR 2SA1317 S,T,U
TR302	ET-353899	TR 2SA1317 S,T,U
TR303	ET-397160J	TR 2SC3330 R,S,T,U,V
TR304	ET-397160J	TR 2SC3330 R,S,T,U,V
TR305	ET-354371	TR DTC124ES
TR306	ET-354371	TR DTC124ES
TR307	ET-354371	TR DTC124ES
TR308	ET-354371	TR DTC124ES
TR309	ET-394735J	TR 2SC3792 T05
TR310	ET-394735J	TR 2SC3792 T05
TS301	ES-408703J	SW TACT EVQ 233 05R T05 [U,E,B,S]
TS311	ES-408703J	SW TACT EVQ 233 05R T05 [V]
VR301	EV-408707J	VR ROTARY RK11K1140 SP W104 [BALANCE VR]

6. MAIN VR P.C BOARD

Ref. No.	Part No.	Description
VR401	EV-408811J	VR SPL EUW M06 022B15 B104X2 [MAIN VR]

7. PHONE JACK P.C BOARD

Ref. No.	Part No.	Description
J501	EJ-413165J	PHONE J 3P YKB21-5009 NI 6.3

8. INDICATOR P.C BOARD

Ref. No.	Part No.	Description
D601	ED-394509J	D LED GL3HY43 ORANGE

9. FUSE P.C BOARD

Ref. No.	Part No.	Description
F701A	*EF-601964	FUSE SEMKO T 250V 1.60A [770]
F701B	*EF-355398	FUSE BET T 250V 2.00A [970]
F702A	*EF-601964	FUSE SEMKO T 250V 1.60A [770]
F702B	*EF-355398	FUSE BET T 250V 2.00A [970]
F703	*EF-358974	FUSE BET T 250V 630MA
F704	*EF-358974	FUSE BET T 250V 630MA
F705	*EF-359086	FUSE BET T 250V 4.00A
F706	*EF-359086	FUSE BET T 250V 4.00A

10. FINAL ASSEMBLY

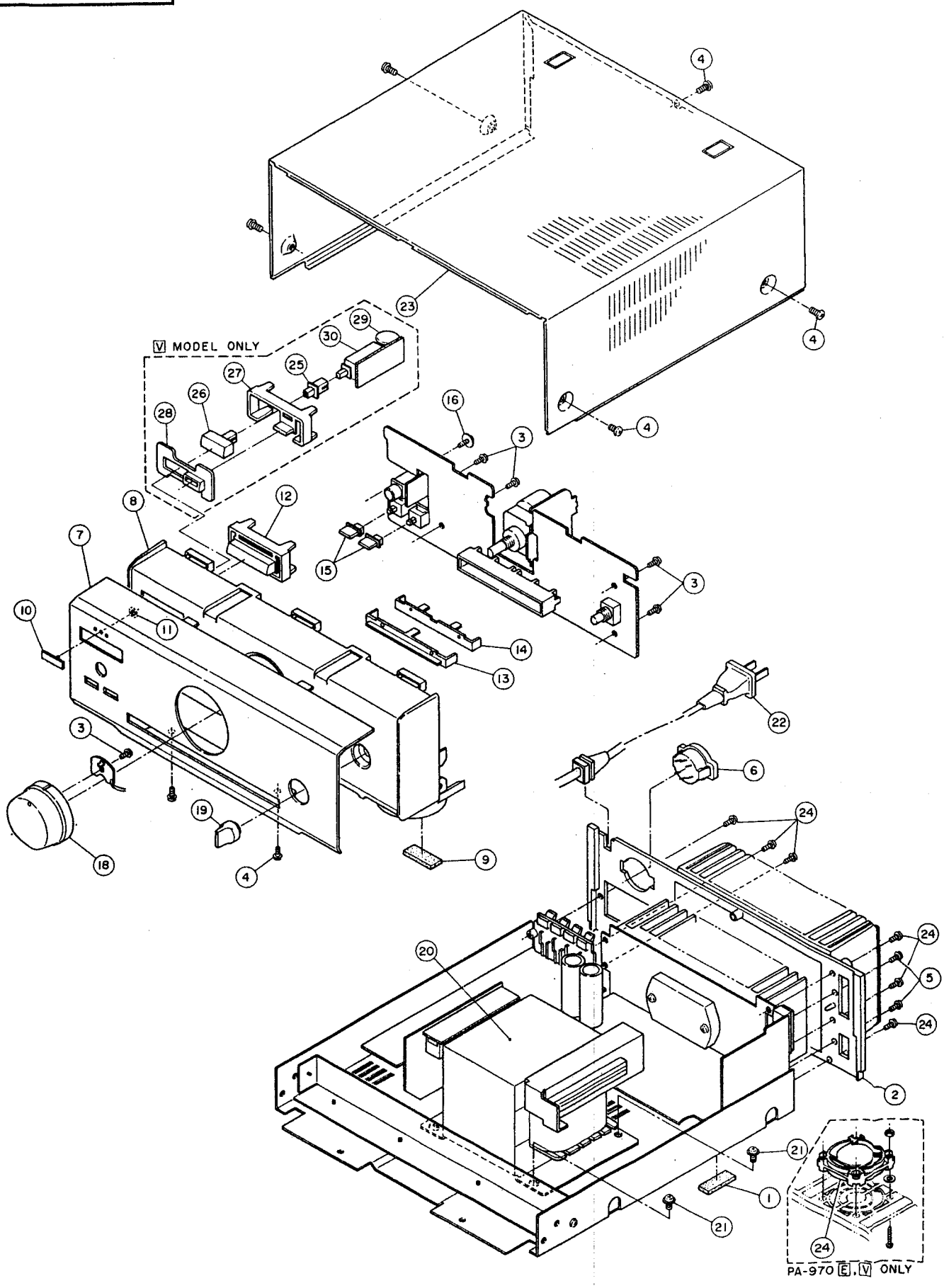
Ref. No.	Part No.	Description
1	SA-407840M	CUSHION FOOT REAR (SG)
2A	SP-408079M1	PANEL REAR PA-(1) (SG) [U]
2B	SP-408080M	PANEL REAR PA-(2) (SG) [E,V,B,S]
3	ZS-394414J	BT BID30X08STL BZN
4	ZS-394412J	BT BID30X08STL BZN PROJECTION
5	ZS-395789J	BT BID30X16STL BZN
6	*ES-349070	SW SELECTOR YKS11-0002 02-4 [U]
7A	SP-411735J	PANEL FRONT-A (B) [770]
7B	SP-411736J	PANEL FRONT-B (B) [970]
8	SE-408064M2	ESCUTCHEON FRONT (SG)
9	SA-394136M	CUSHION FOOT (SG)
10	SM-409218J	NAME PLATE AKAI-S
11	ZW-340648	RING CS 190STL PKR
12	SB-408066M	BUTTON POWER (SG) [U,E,B,S]
13	SE-408069M	LENS INDICATOR (1) (SG)
14	SE-408070M	LENS INDICATOR (2) (SG)
15	SB-408067M	BUTTON SP (SG)
16	ZS-407886J	BT PAN30X08STL BZN C100
18	SK-414232J	KNOB VR
19	SK-407865M	KNOB BALANCE (SG)
20A	*BT-408784M	TRANS POW A5013 U [U] [770]
20B	*BT-408785M	TRANS POW A5013 E V [E,V] [770]
20C	*BT-408786M	TRANS POW A5013 B S [B,S] [770]
20D	*BT-408787M	TRANS POW A5014 U [U] [970]
20E	*BT-408788M	TRANS POW A5014 E V [E,V] [970]
20F	*BT-408789M	TRANS POW A5014 B S [B,S] [970]
21	ZS-346742	ST BID40X08STL CMT CUP
22A	*EW-408790M	AC CORD200 SZ4W H03VVH2F 3120 U [U]
22B	*EW-404002M	AC CORD 200 SE-1 WITH TUBE E [E,V]
22C	*EW-416505M	AC CORD 200 *A5015-B B [B]
22D	*EW-412366M	AC CORD 200 SA-5 WITH TUBE S [S]
23	SP-408065M	COVER UPPER PA (SG)
24	BM-410625J	MOTOR FAN MDF-4010-12L [E,V] [970]
25	SZ-416110M	JOINT POWER (SG) [V]
26	SB-416111M	BUTTON POWER (SG) [V]
27	SB-416112M	BUTTON STANDBY (SG) [V]
28	SE-416113M	PROTECTOR BUTTON (SG) [V]
29	*EC-403337J	C CE V DE7100 F472M 400AC [V] [C41]
30	*ES-410570J	SW PUSH SDDLD1 BD3.2 01-1 [V] [SW41]

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

11. ACCESSARY

Ref. No.	Part No.	Description
1	AX-411759M	REMOCON RC-S670

FINAL ASSEMBLY



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Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.
AX411759M	11-1	EF601964	9-F702A	ZS394412J	10-4		
BAA5013T030A	2-1A	EI358554	3-IC1A	ZS394414J	10-3		
BAA5013T030B	2-1B	EI366695	3-IC1B	ZS395789J	10-5		
BAA5013T030D	2-1D	EJ408698J	3-TM1	ZS407886J	10-16		
BAA5013T030E	2-1F	EJ408717J	4-J6	ZW340648	10-11		
BAA5013T030F	2-1G	EJ408775J	4-J7				
BAA5013T030H	2-1J	EJ413165J	7-J501				
BAA5013T030J	2-1E	EO338409	3-L5				
BAA5013T030K	2-1H	EO342936	3-L3				
BAA5013T030L	2-1C	EO342936	3-L4				
BM410625J	10-24	EO403613J	3-L1				
BT408784M	10-20A	EO403613J	3-L2				
BT408785M	10-20B	ER331188	3-FR1				
BT408786M	10-20C	ER397193J	3-R9				
BT408787M	10-20D	ER397193J	3-R10				
BT408788M	10-20E	ER397193J	3-R59				
BT408789M	10-20F	ER397193J	3-R60				
EC394534J	3-C83B	ER397194J	5-R313				
EC394534J	3-C84B	ER397194J	5-R314				
EC394535J	3-C83A	ER401039J	3-FR3				
EC394535J	3-C84A	ER408716J	3-FR2				
EC403337J	3-C91	ES349070	10-6				
EC403337J	3-C92	ES394512J	5-SW301				
ED307572	3-D5	ES394512J	5-SW302				
ED307572	3-D6	ES408703J	5-TS301				
ED307572	3-D7	ES408703J	5-TS311				
ED307572	3-D8	ET353899	3-TR4				
ED307572	3-D9	ET353899	3-TR6				
ED307572	4-D205	ET353899	5-TR301				
ED378530J	4-D203	ET353899	5-TR302				
ED384278J	3-D1B	ET354365	3-TR1				
ED388320J	3-D4	ET354371	5-TR305				
ED388320J	3-D10	ET354371	5-TR306				
ED388320J	3-D13	ET354371	5-TR307				
ED388320J	4-D204	ET354371	5-TR308				
ED394509J	8-D601	ET366365	3-TR3				
ED394708J	3-D1A	ET366581	4-TR201				
ED403757J	5-D305	ET369248	3-TR5				
ED403757J	5-D306	ET373985	3-TR2				
ED403757J	5-D307	ET378524J	4-TR202				
ED403757J	5-D308	ET394735J	5-TR309				
ED403757J	5-D309	ET394735J	5-TR310				
ED408768J	5-D301	ET397160J	5-TR303				
ED408768J	5-D302	ET397160J	5-TR304				
ED408768J	5-D303	EV408707J	5-VR301				
ED408768J	5-D304	EV408811J	6-VR401				
ED511907	3-D2	EW404002M	10-22B				
ED511907	3-D3	EW408790M	10-22A				
ED511907	3-D11	EW412366M	10-22D				
ED511907	3-D12	EW416505M	10-22C				
ED511907	3-D14	SA394136M	10-9				
ED511907	3-D15	SA407840M	10-1				
ED511907	3-D16	SB408066M	10-12				
ED511907	3-D17	SB408067M	10-15				
ED511907	3-D18	SB416111M	10-26				
ED511907	4-D201	SB416112M	10-27				
ED511907	4-D202	SE408064M2	10-8				
EF355398	3-F3	SE408069M	10-13				
EF355398	3-F4	SE408070M	10-14				
EF355398	9-F701B	SE416113M	10-28				
EF355398	9-F702B	SK407865M	10-19				
EF358974	9-F703	SK414232J	10-18				
EF358974	9-F704	SM409218J	10-10				
EF359086	9-F705	SP408065M	10-23				
EF359086	9-F706	SP408079M1	10-2A				
EF359225	3-F1B	SP408080M	10-2B				
EF359225	3-F2B	SP411735J	10-7A				
EF364518	3-F1A	SP411736J	10-7B				
EF364518	3-F2A	SZ416110M	10-25				
EF601964	9-F701A	ZS346742	10-21				

ABBREVIATIONS (AMPLIFIER)

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECord
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

MAIN POWER PCB A5013A501H

FUSE PCB A5013A501G

⚠ T901
U : A5013-U
E V : A5013-EV
B S : A5013-BS

BLU 120V
W906 WHT 10V
W905 ORG 0V
W904 YLW 120V
W903 BRN 110V
⚠ SW901
VOLTAGE SELECTOR
RED 0V
BLU 240V
WHT 230V
W909
WIRE ASSY A5013
B S
RED 0V
230V
EXCEPT V
0V
240V 230V
W902 BLU
W908 GRY
W907 RED
W901 RED
W902A WHT
W901A RED
W902B WHT
W902C WHT
E
P12 P22 P12B P12A

⚠ F705
⚠ F706
⚠ F701
⚠ F702
⚠ F703
⚠ F704

P1 J1
1 ~ MAIN
2 GND MAIN
3 ~ MAIN
4 ~ SUB
5 GND PRE
6 ~ SUB
7 ~ CD
8 GND CD
9 ~ CD

W10
~ VF
~ VF

U ONLY
⚠ F4
⚠ F3
U B S ONLY
JS9
E V ONLY
⚠ L5
FKO8160MH02
250μH
⚠ C91
0.0047
/400AC (M)
⚠ C92
0.0047
/400AC (M)
LIVE
NEUTRAL
P11
BRN
BLU
⚠

E V 220-230V 50Hz
S 240V 50Hz
U 110/120/220/240V 50/60Hz
B 240V 50Hz

V ONLY
P41
C41 0.47 400AC
⚠
SW41
⚠
POWER SW PCB
AS015B5010

SP.A L R
SP.B L R
TM1
C96 0.01 (Z)
C97 0.01 (Z)
C98 0.01 (Z)
C99 0.01 (Z)
V ONLY
L3
L4

⚠ D2 1N4002
⚠ D3 1N4002
R82 20K
※ R83
R84 150K 1/4W
D5 1SS131
C86 22/50
R85 100
TR1 DTC114YS
C81 0.022(Z)
C82 0.022(Z)
※C83
※C84
C85 2.2/50
D4 HZS12B3L
TR2 DTA144TS
C90 10/50
D6 1SS131
D7 1SS131
C100 0.0022 (Z)
⚠ D1 ※
D14 1N4002
D15 1N4002
D16 1N4002
D17 1N4002

	PA-770	PA-970
C83	3300/45	4700/50
C84	3300/45	4700/50
D1	RBA-402	RBV-602
R7	2.2K	3.3K
R8	2.2K	3.3K
R57	2.2K	3.3K
R58	2.2K	3.3K
R83	47K	51K

*	R4	R54
PA-970	430	430
PA-770 U S	750	750
PA-770 E V B	510	510

C1 2.2/50
R1 1K 1/4W
R2 56K
C2 220P
R51 1K 1/4W
C52 220P
R52 56K
C51 2.2/50

⚠ D11 1N4002
⚠ D12 1N4002
JS10
P4
J10
J4
POWER SU

⚠ D201 1N4002
⚠ TR201 2SD1762 (E, F)
5.4V
+5V (VR)
22.3V
5.8V
TR202 2SC3383 (S, T, U)
⚠ D202 1N4002
22.1V
+12V (LED)
12.8V
R202 4.7K 1/4W
D205 1SS131
R201 10K 1/4W
C201 220/50
⚠ D203 HZS6B2L
⚠ D204 HZS12B3L
J6
1 GND (SYS)
2 VF
3 VF
4 GND (MEC)
5 AMP
6 AMP
7 CD
8 GND (CD)
9 CD
10 VR UP
11 VR DOWN
12 Rch
13 GND (SIG)
14 Lch
15 AUD. MUTE
CONNECTION PCB A5013A501B J7
FROM MODEL TP-770

FUSE No.	F1	F2	F3	F4	F701	F702	F703	F704	F705	F706
PA-970 E V	T3.15A	T3.15A	—	—	T2.0A	T2.0A	T630mA	T630mA	T4.0A	T4.0A
PA-970 S B	T3.15A	T3.15A	T2.0A	—	T2.0A	T2.0A	T630mA	T630mA	T4.0A	T4.0A
PA-970 U	T3.15A	T3.15A	T2.0A	T2.0A	T2.0A	T2.0A	T630mA	T630mA	T4.0A	T4.0A
PA-770 E V	T2.5A	T2.5A	—	—	T1.6A	T1.6A	T630mA	T630mA	T4.0A	T4.0A
PA-770 S B	T2.5A	T2.5A	T2.0A	—	T1.6A	T1.6A	T630mA	T630mA	T4.0A	T4.0A
PA-770 U	T2.5A	T2.5A	T2.0A	T2.0A	T1.6A	T1.6A	T630mA	T630mA	T4.0A	T4.0A

WARNING: ⚠
C
R
O
P
AVERTISSME
C
P
D
P

	PA-770	PA-970
C83	3300/45	4700/50
C84	3300/45	4700/50
D1	RBA-402	RBV-602
R7	2.2K	3.3K
R8	2.2K	3.3K
R57	2.2K	3.3K
R58	2.2K	3.3K
R83	47K	51K

*	R4	R54
PA-970	430	430
PA-770 V S	750	750
PA-770 E V B	510	510

WARNING: ⚠ AND ▒▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▒▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF (P=PF) 50V (J)
ALL ELECTROLYTIC CAPACITORS IN μF/WV (M)

INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT. (FUNCTION:CD MODE)

PA-770/970
POWER SUPPLY & MAIN AMP SCHEMATIC DIAGRAM

NO.8-5 A501501M

A1

PRINCIPAL PARTS LOCATION

ICs

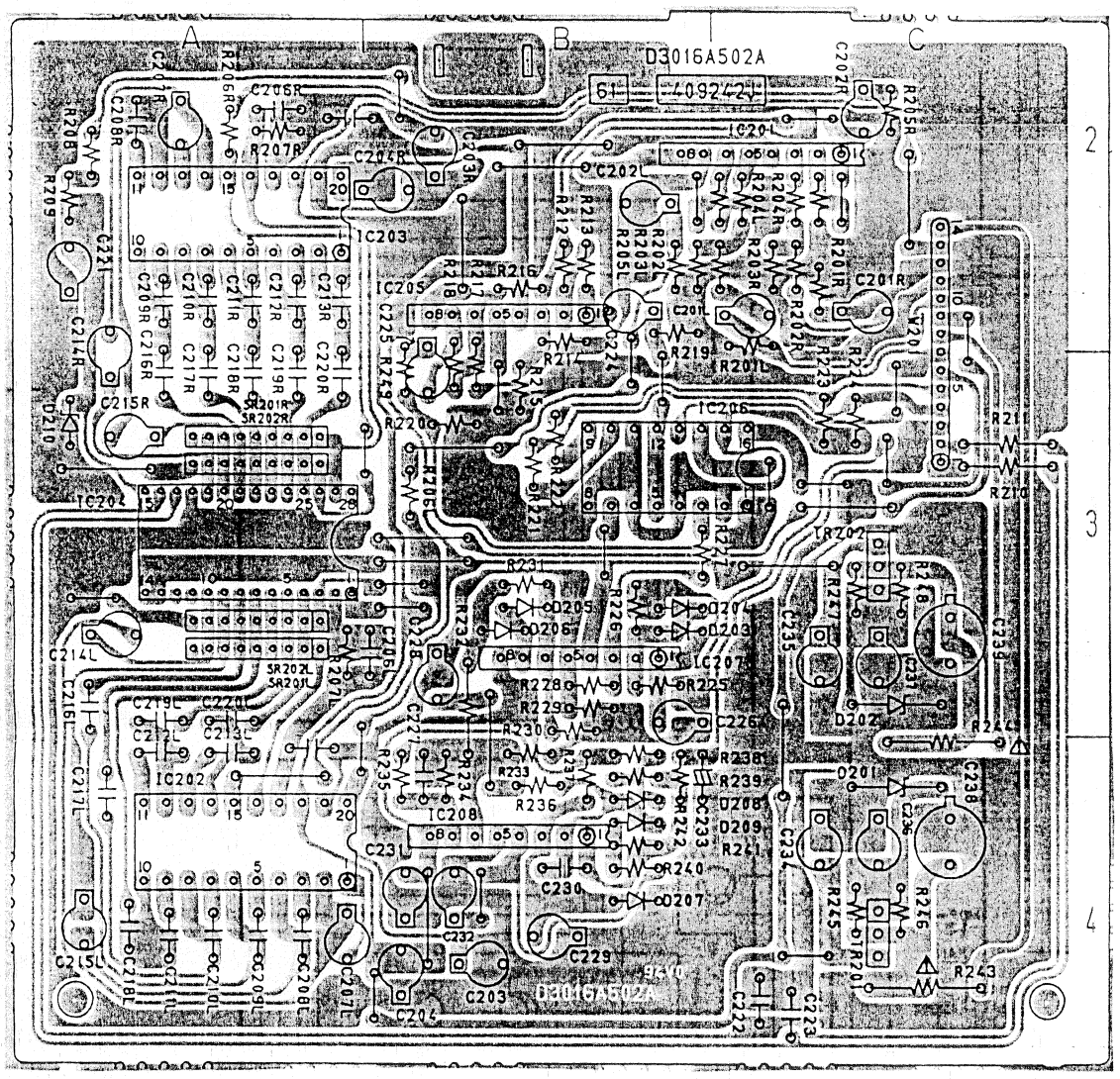
IC201 ..... C2
IC202 ..... A4
IC203 ..... A2
IC204 ..... A3
IC205 ..... B2
IC206 ..... B3
IC207 ..... B3
IC208 ..... B4

WIRE

W201 ..... C2,3

TRANSISTORs

TR201 ..... C4
TR202 ..... C3

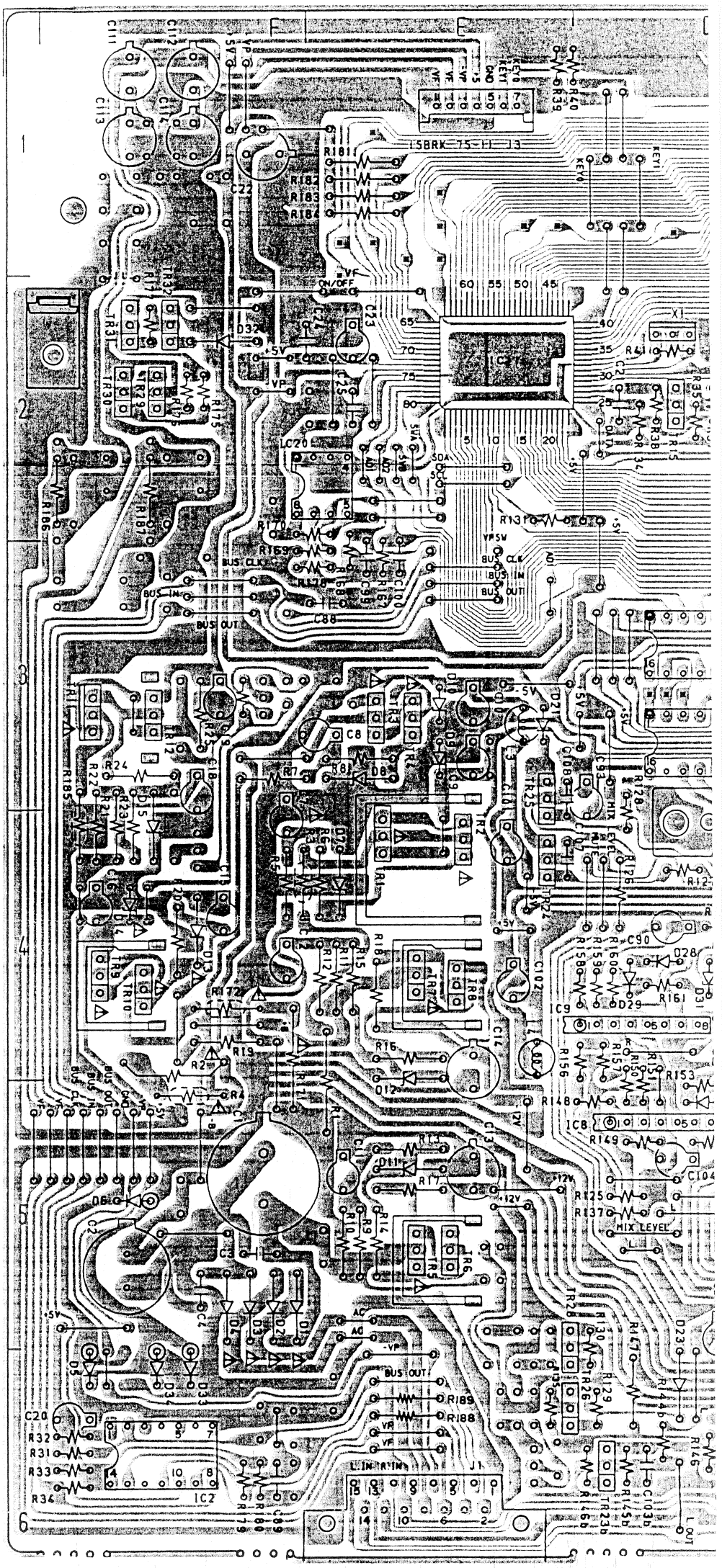


SUB PCB D3016A502A

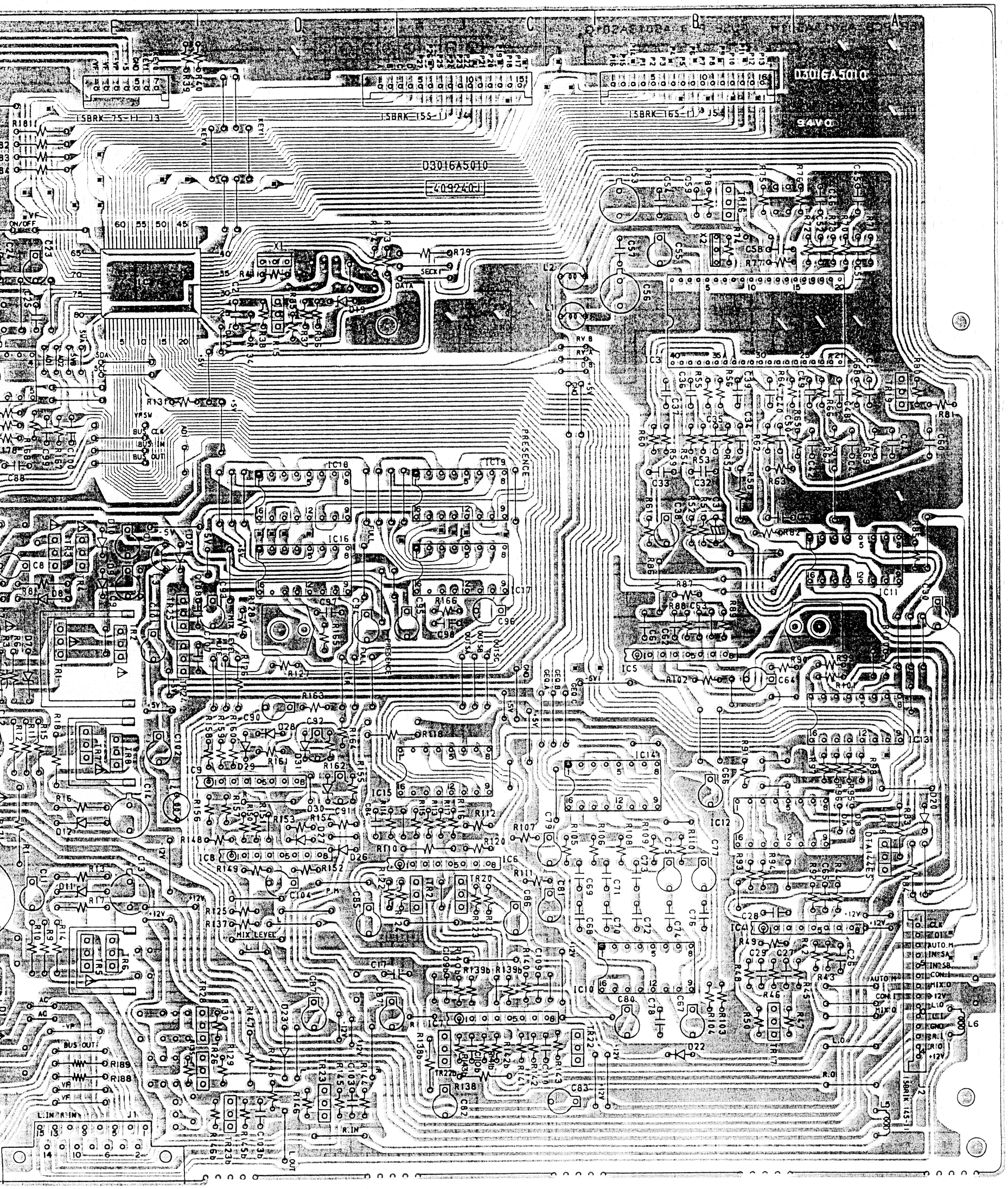
NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTAINING PARTS INFORMATION.

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



MA



MAIN PCB D3016A5010

PRINCIPAL PARTS LOCAT

ICs

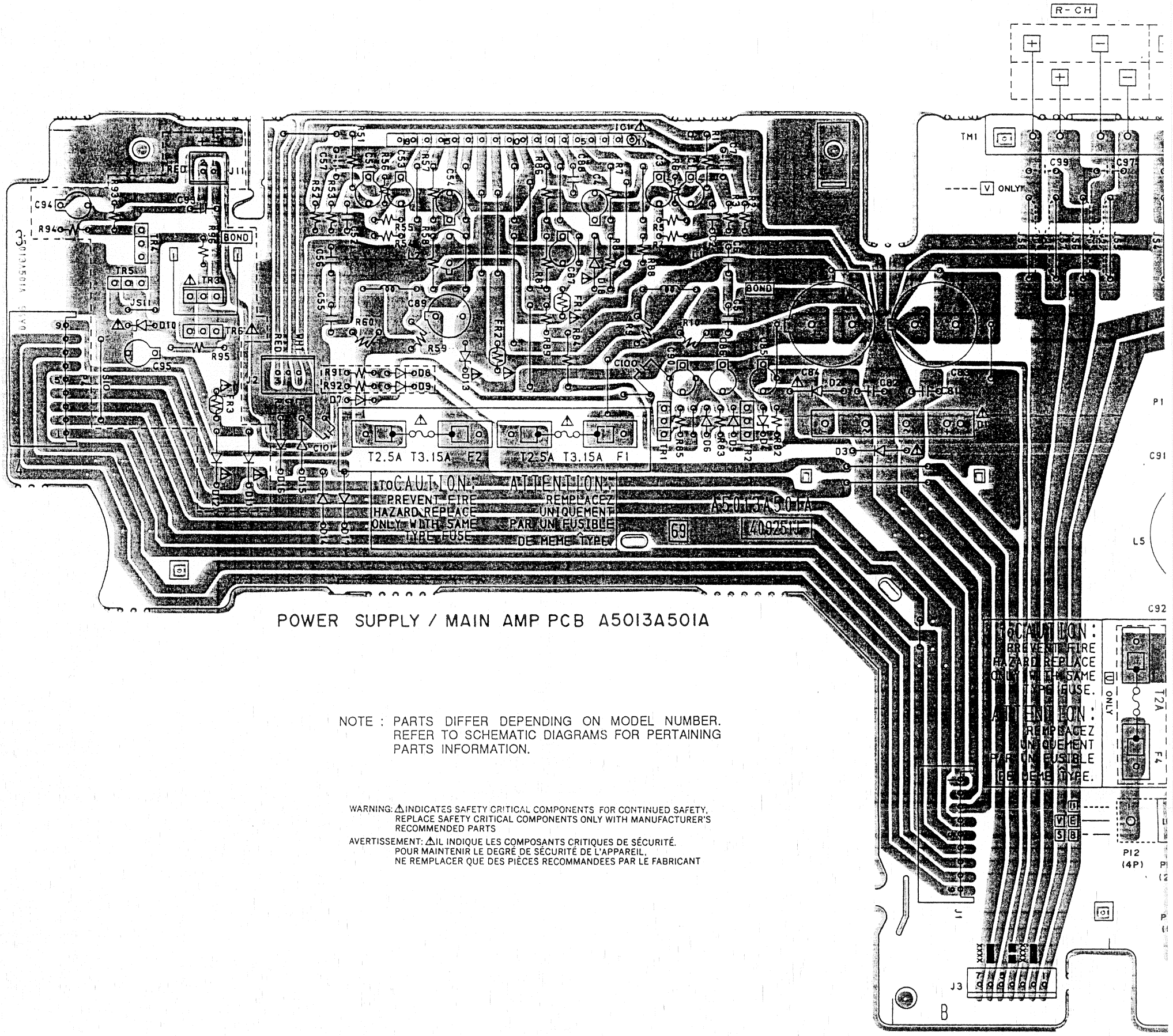
IC1	E2
IC2	F6
IC3	B2
IC4	A,B5
IC5	B4
IC6	C5
IC7	C5,6
IC8	D5
IC9	D4
IC10	B5
IC11	A3
IC12	A,B5
IC13	A4
IC14	C,B4
IC15	C4
IC16	D3
IC17	C3
IC18	D3
IC19	C3
IC20	E2

CONNECTORs

J1	E6
J2	A5,6
J3	E1
J4	C1
J5	B1

TRANSISTORs

TR1	E4
TR2	E4
TR3	E3
TR4	E3
TR5	E5
TR6	E5
TR7	E4
TR8	E4
TR9	F4
TR10	F4
TR11	F3
TR12	F3
TR15	D2
TR16	B1
TR17	B5,6
TR18	A5
TR19	A2
TR20	C5
TR21	C5
TR22	C6
TR23	D6
TR24	E4
TR25	E3
TR26	E6
TR28	E5,6
TR29	F2
TR30	F2
TR31	F2
TR32	F2

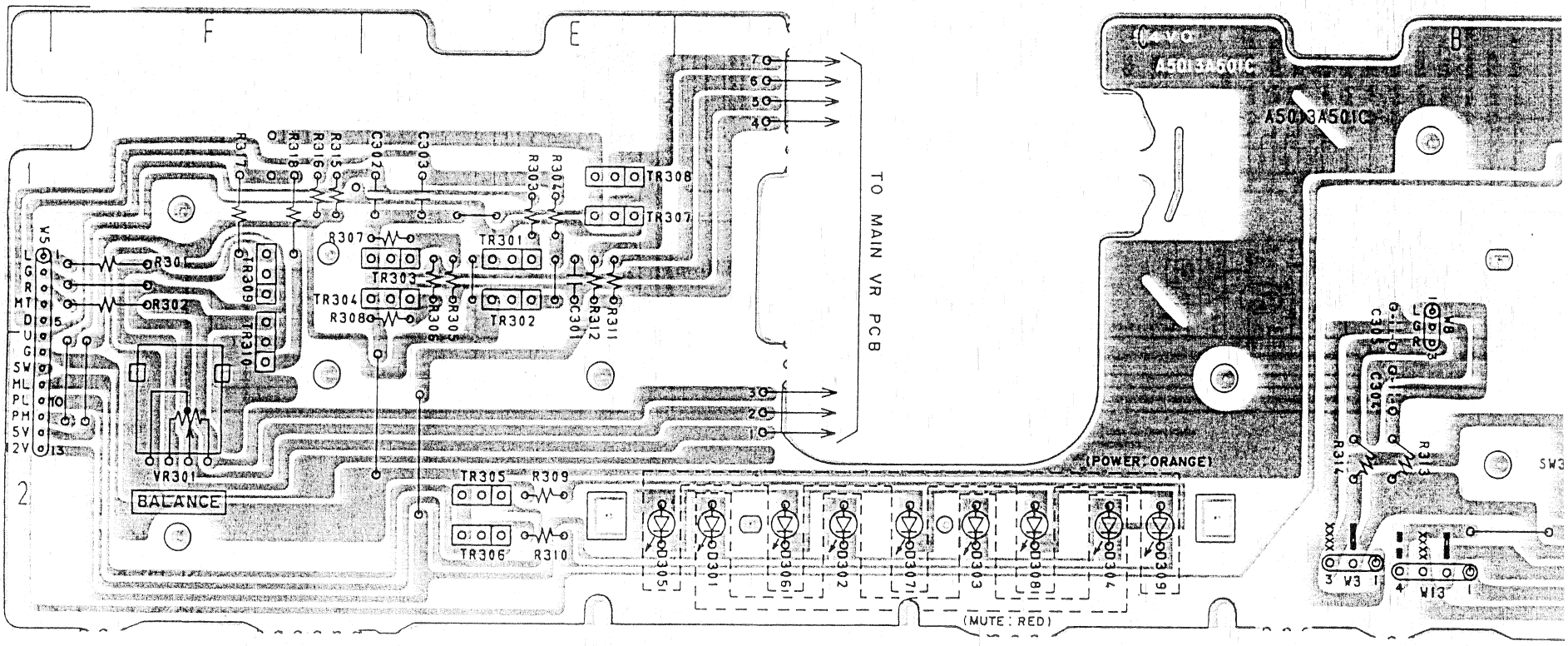


POWER SUPPLY / MAIN AMP PCB A5013A501A

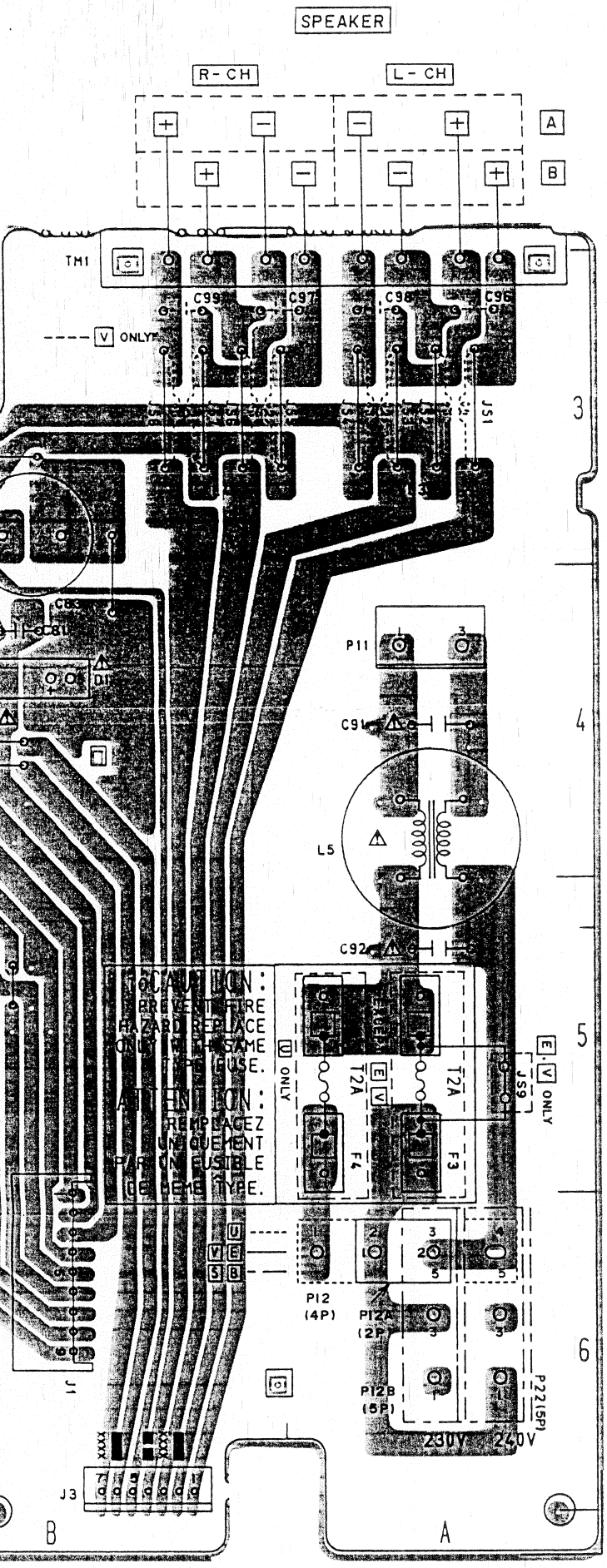
NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTAINING PARTS INFORMATION.

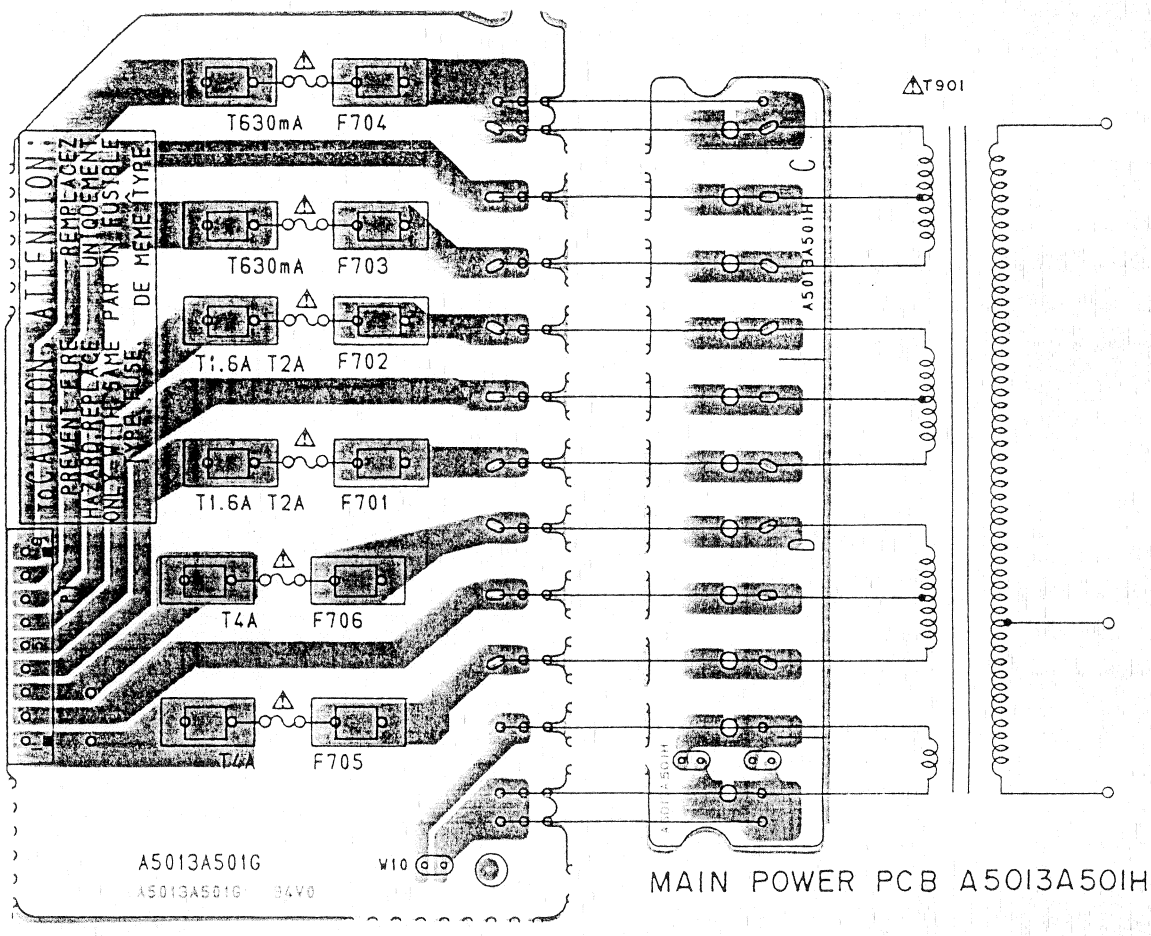
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



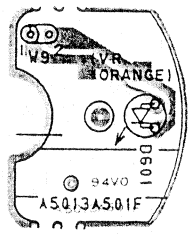
CONTROL PCB A5013A501C



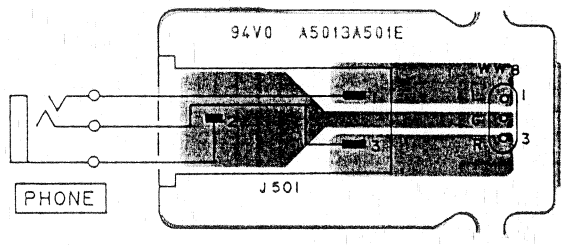


FUSE PCB A5013A501G

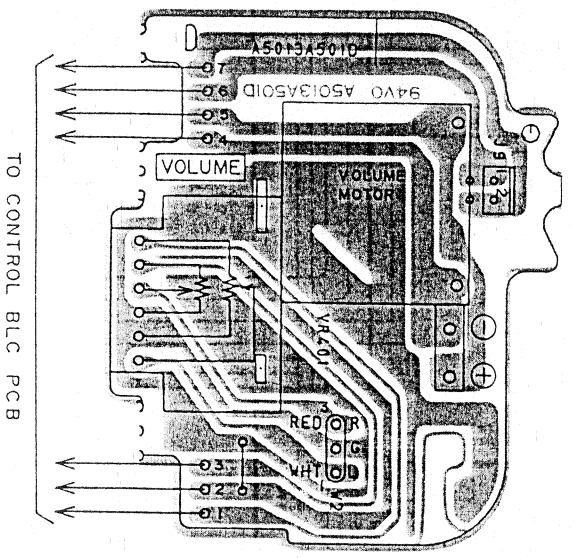
MAIN POWER PCB A5013A501H



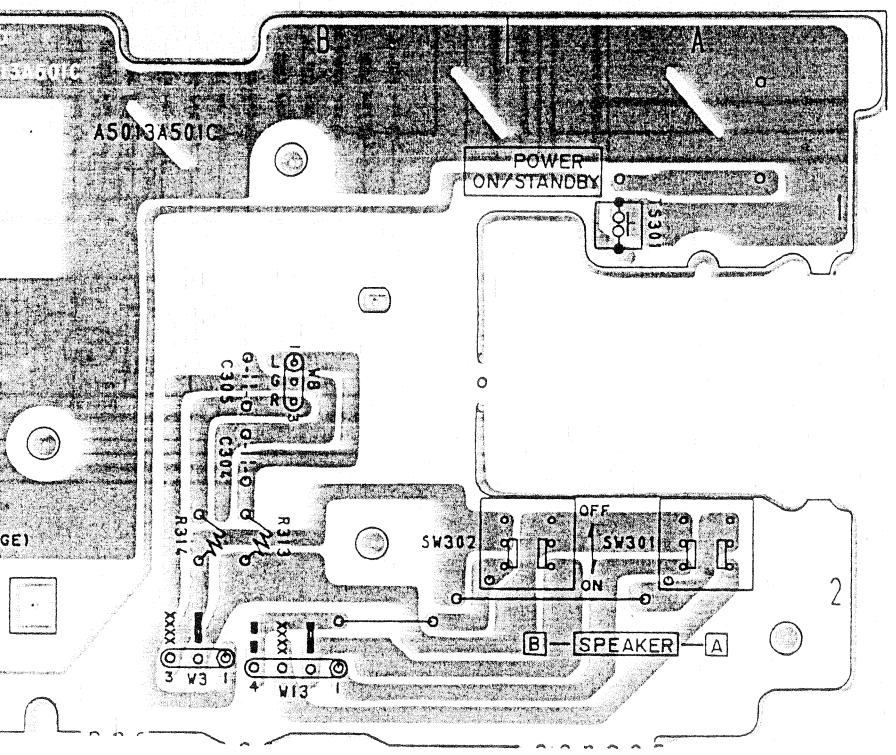
INDICATOR PCB
A5013A501F

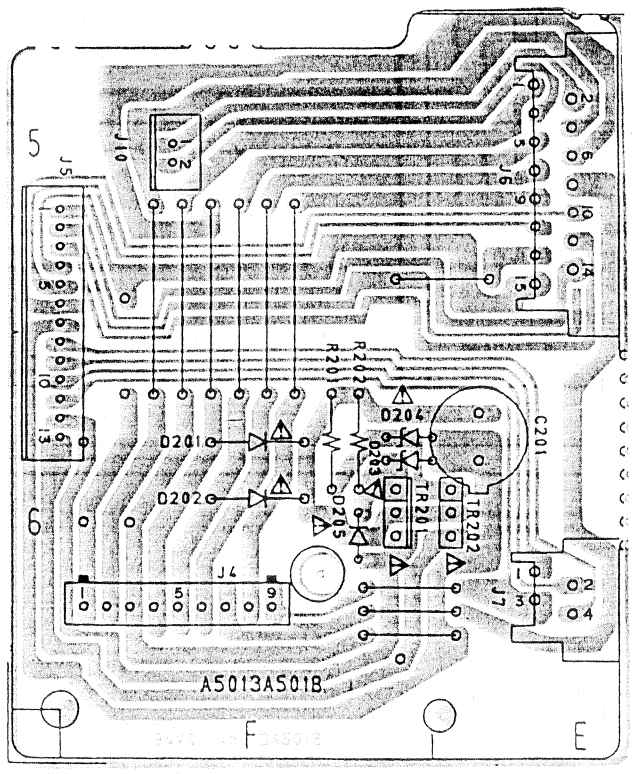


PHONE JACK PCB A5013A501E

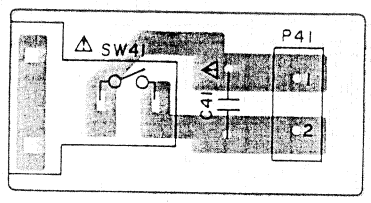


MAIN VR PCB A5013A501D





CONNECTION PCB A5013A501B



POWER SW PCB
A5015A5010
(V ONLY)